In support of the Examiner's position, the Examiner further erroneously argues that "It would have been obvious to one of ordinary skill in the art . . . to have modified Medeksza by providing means for reciprocating oscillation of a workpiece, as suggested by AAPA, ..." The AAPA makes no suggestion whatsoever of oscillation of the workpiece. Indeed, the operation of the AAPA is plainly disclosed in Figure 2, and results in movement of the workpiece on a static spiral path. There is no suggestion of oscillation of the workpiece on a spiral path. Therefore, in any attempt to combine AAPA with Medeksza, the workpiece will move in a static spiral path and the tool in an oscillating path aligned with the rotational axis of the workpiece.

Neither the oscillation of the workpiece nor the oscillation of any other component in the transverse axis is taught or suggested by Medeksza or AAPA. The only basis for any such structure and operation is the present teaching of applicant and applicant is entitled to allowance of all the claims as presented.

The Examiner further rejects claims 3-5, 7 and 8 under 35 USC, Section 103 as unpatentable over Medeksza and AAPA in view of Dombrowski. However Dombrowski also oscillates the tool in the direction of the rotational axis. For this reason alone, Dombrowski fails to teach anything relative to applicant's invention. However, the particular language of Dombrowski referenced by the Examiner is directed to oscillation "relative to the line of feed advance or along the direction of feed vectors while the amplitude of this oscillation corresponds approximately to one half of the effective feed distance per workpiece revolution . . ." But, Dombrowski's amplitude is related to the feed rate **of the tool** during revolution of the workpiece (see e.g. col 4, l 52, through col 5, l 6;

col 9, l 51-59), while applicant's amplitude is related to the feed rate of the workpiece during revolution of the workpiece.

The above appreciation of Dombrowski's teaching further distinguishes the Examiner's argument that "the sinusoidal relationship recited in claims 4 and 5 would be a natural extension of the theories taught by either Medeksza or Dombrowski. . ." This is not the case. The sinusoidal relationships defined in applicant's claims 4 and 5 produce the oscillatory motion of applicant's Figure 3 and 4 in which the sinusoidal nadirs and crests meet along the spiral path which results from the nominal rate of movement of the workpiece during rotation so that the meeting of the crests and nadirs results in the chipping or segmenting characteristic of the device independent of the depth of penetration of the tool into the workpiece. In Dombrowski and Medeksza the nadirs and crests of the sinusoidal path do not meet along the spiral path of rotation, but meet at a depth of penetration, of the tool into the workpiece, measured along the rotational axis. It is, therefore, further submitted that these claims are also allowable.

The Examiner has further rejected claims 3 and 6 under 35 USC, Section 112. The Examiner argues that claim 3 is unclear because it is inconsistent to compare an amplitude to an infeed rate since an amplitude is generally expressed as a displacement and an infeed rate as a displacement in relation to time or revolution. The Examiner's point is well taken and claim 3 has been amended accordingly. The Examiner has rejected claim 6, arguing that "computer" lacks antecedent basis and that the claim is "indefinite for not further limiting the machine." Applicant has amended claim 6 as suggested by the Examiner to relate back to the "computer means" as set forth in claim 1. Applicant further

submits that in this means plus function form, the claim is not indefinite but does limit the structure of the machine.

In light of the above, applicant respectfully submits that all of the claims in the application are allowable and allowance of all claims is respectfully requested.

Respectfully submitted,

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